

CALFED Operations Group
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Winter-run chinook salmon:

The first juvenile winter-run chinook salmon were observed yesterday at the Fish Salvage Facilities. High numbers of older sized juvenile salmon appeared in the near Delta monitoring stations starting in mid November after the first storm event which necessitated an immediate DCC gate closure. Since then the numbers have decreased but continue at a level that warrants gate closure in accordance with the Salmon Decision Tree Process.

NMFS and CDFG are developing a juvenile production estimate (JPE) for this year and expect to have it completed in January. The two agencies have agreed to change methods this year and use the upper Sacramento River carcass surveys to base the JPE on. Both the Red Bluff Diversion counts and the carcass surveys are larger then last year.

Steelhead and Spring-run Chinook:

Fish Salvage Facilities reported no steelhead loss or spring-run chinook salvaged so far this year. Mitten crab numbers are no longer a problem at the screens.

Spring-run chinook salmon:

Field surveys have been completed in Deer, Butte and Big Chico creeks. Mill Creek surveys will be conducted in October and reported as soon as possible. Estimates of adult spring run chinook salmon abundance are:

	<u>2001</u>	<u>Cohort Replacement Rate</u>
Mill Creek	1,100	2.6
Deer Creek	1,622	0.9
Big Chico Cr	39	--
Butte Cr	9,605	0.5

The cohort replacement rate assumes a large, constant proportion of adults returning at age 3. Replacement rates >1.0 indicate increasing abundance of the cohort. The cohort replacement rate of 0.5 for Butte Creek would generally be considered a poor outcome. However, 9,605 spring-run is the second largest return in recent decades. Although we do not have data on the age-structure for the Butte Creek population, we assume most of these adult salmon are age 3 and are the progeny of brood year 1998. In 1998 an extraordinary high, and perhaps unsustainable

number of spring-run returned to spawn in Butte Creek.

American River water temperatures were reduced in November with a power bypass using EWA power credits from earlier export curtailments at the pumps. This creative adaptive approach was successful in reducing in river water temperatures below Nimbus Dam and allowed fall-run chinook to spawn approximately one week earlier than otherwise. The action may have had an added benefit to adult steelhead as five adults were observed returning up the ladder as soon as it opened.